Prashant RAI
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Date of birth: Jan 24, 1984
Nationality: Indian

Education

2011 – 2014 École Centrale de Nantes, France.
PhD in Scientific Computing/Computational Mechanics
Title: Non intrusive methods based on separated representation for propagation of uncertainty in numerical simulations.

2009 – 2011 École Centrale de Nantes, France.
M.Sc. in Applied Mechanics (Computational Solid Mechanics)
Rank : 1/12, Score : 16.31/20, Jury Mention : Very Good.

2001 – 2005 University of Mumbai, India.
Bachelor of Engineering (Mechanical Engineering)
Class : Distinction.

Work Experience

2010 (4 months) European Aeronautic Defense and Space Company Innovation Works, Bangalore, India.
Global sensitivity analysis and estimation of response surface using polynomial chaos expansion. Seamless integration of related software tools for grid computing.

2007 – 2009 (2-1/2 years) Zeus Numerix, Society for Innovation and Entrepreneurship, IIT Bombay, Mumbai, India.
·Investigation of CFD-Computational Aeroacoustic (CAA) coupling schemes for aero-acoustic analysis in a multidisciplinary design optimization framework (A joint work with EADS Innovation Works).
·Development of coupling scheme for unsteady implicit CFD solver and boundary element method based CAA Solver.

2005-2006 (1 year) Voltas Limited, Mumbai, India.
Design and selection of high capacity refrigeration and air-conditioning equipments based on desired input/output conditions using engineering based analysis and product software packages.

Publications

Chevreuil M., Lebrun R., Nouy A., Rai P., "A least-squares method for sparse low rank approximation of multivariate functions"(Submitted to SIAM Journal of Uncertainty Quantification).

Rai P., Giraldi L., Nouy A., Chevreuil M., "A least squares method for the approximation of high dimensional functions using sparse tensor train low-rank format (In preparation) .

Rai P., Chevreuil M., Nouy A., Sen Gupta J., "A Regression Based Non Intrusive Method Based on Separated Representation for Uncertainty Quantification", 11th ASME Biennial Conference on Engineering Systems Design and Analysis, June 2012, Nantes, France .

Rai P., Chevreuil M., Nouy A.,"A regression based non-intrusive method using sparse tensor representation for uncertainty quantification, 7th International Conference on Sensitivity Analysis of Model Output, July 2013, Nice, France .

Thakur A, Rai P, Felix M, Jain S, "Computation of unsteady flowfield and induced noise for flow past a 3D wing with flaps in landing configuration", 3rd European Conference for Aero-Space Sciences, July 2009, Versailles, France .

Language and Computer Skills

French:	working knowledge.
English:	fluent, TOEFL score of 110/120, August 2009.
Hindi:	mother tongue.

· Good knowledge of C/C++ python and Qt.
· Experience with Matlab, OpenTURNS, R, Catia, Pro-E, CFD-Expert.
· Good working knowledge of Linux and Microsoft Windows.